CLAIMS

What is claimed is:

1. A method for extracting antineoplastic components from *Bupleurum scorzonerifolium*, the method comprising steps of:

extracting a lignan mixture from *Bupleurum scorzonerifolium* wherein the lignan mixture further comprises at least one antineoplastic component; and

isolating a pure *Bupleurum scorzonerifolium* extract from the lignan mixture.

2. The method of claim 1, wherein the step of extracting a lignan mixture from *Bupleurum scorzonerifolium* further comprising steps of:

dissolving *Bupleurum scorzonerifolium* powder using a first solution to obtain a first extract and residues;

extracting from the residues using a second solution to obtain a second extract;

extracting the first extract using a third solution to obtain a third extract and an alcohol portion, and dehydrating alcohol in the alcohol portion to obtain an aqueous portion; and

extracting and concentrating the aqueous portion using a fourth solution, wherein the first, second, third, and fourth solution have different polarity from each other.

3. The method of claim 2, wherein the first solution is acetone.

4. The method of claim 2, wherein the second solution is methanol.

5. The method of claim 2, wherein the third solution is 95% methanol solution.

6. The method of claim 2, wherein the fourth solution is chloroform.

7. The method of claim 2, further comprises a chromatographic method for separating antineoplastic components.

8. The method of claim 7, wherein the chromatographic method is a silica gel chromatography.

9. The method of claim 7, wherein the chromatographic method is a high performance liquid chromatography (HPLC).

10. The method of claim 7, wherein the chromatographic method is a medium pressure liquid chromatography (MPLC).

11. The method of claim 1, further comprises a mass spectrometry and a nuclear magnetic resonance spectrum for identifying molecular weight and structure of the pure *Bupleurum scorzonerifolium* extract.

12. The method of claim 1, wherein the cell proliferative disorder includes hepatoma.

13. The method of claim 1, wherein the cell proliferative disorder includes ovarian cancer.

14. The method of claim 1, wherein the cell proliferative disorder includes malignant glioblastoma.

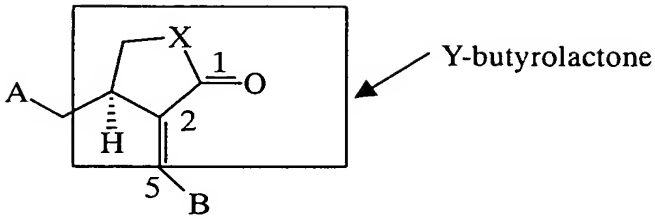
15. The method of claim 1, wherein the cell proliferative disorder includes lung cancer.

16. The method of claim 1, wherein the cell proliferative disorder includes colorectal cancer.

17. The method of claim 1, wherein the cell proliferative disorder is resistant to a taxane-type anticancer agent.

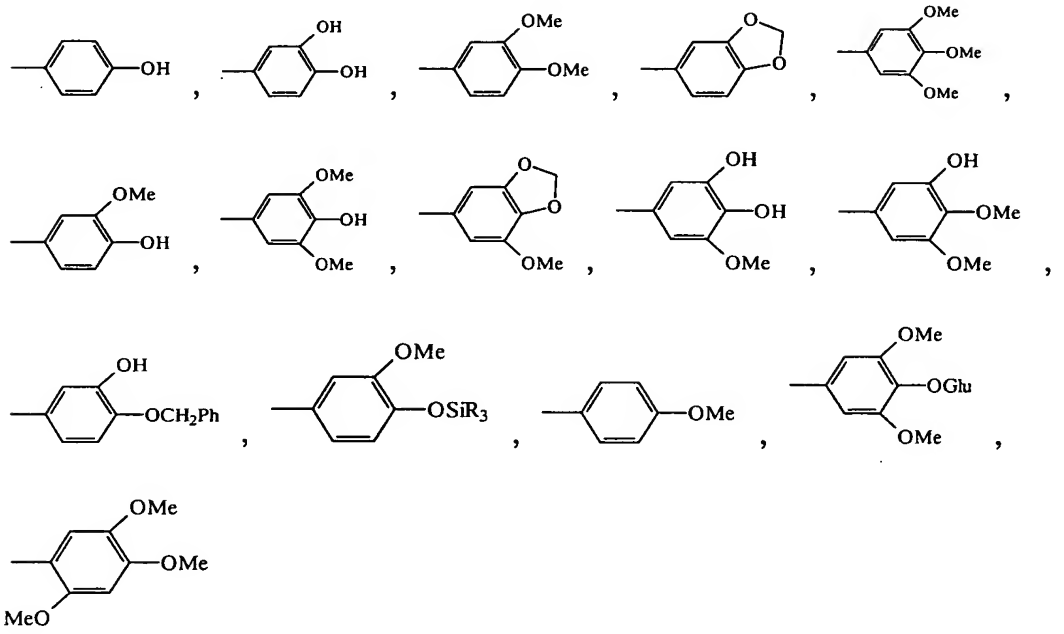
18. The method of claim 17, wherein the taxane-type anticancer agent is Paclitaxel.

19. The method of claim 1, wherein the antineoplastic components comprise at least one of the following heterocyclic compounds or pharmacologically compatible salts, esters, ketones or derivatives based on the following formula:



wherein X includes N, O, S, and Se.

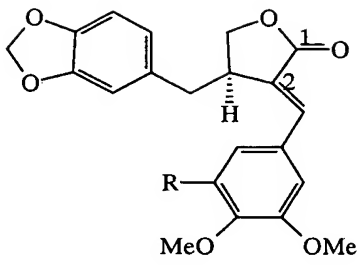
20. The method of claim 19, wherein A, B substituents can be selected from the following substituent structures:



21. The method of claim 19, wherein the heterocyclic compounds have a Z configuration at a carbon 2(5) position.

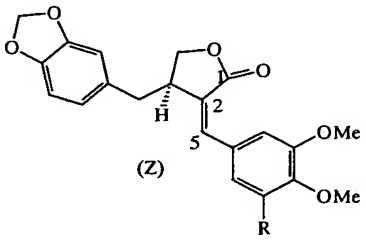
22. The method of claim 19, wherein the heterocyclic compounds have a E configuration at a carbon 2(5) position.

23. The method of claim 19, wherein the heterocyclic compound having the following formula is named chaihulactone:



where R representsa methoxyl group.

24. The method of claim 19, wherein the heterocyclic compound having the following formula is named isochaihulactone:



where R represents a hydrogen atom, a methoxyl group, or an aromatic group.

25. The method of claim 1, wherein the antineoplastic component is an agent for arresting a G2/M stage of a cell cycle.

26. The method of claim 1, wherein the antineoplastic component is a microtubule stabilizing agent.

27. The method of claim 1, wherein the antineoplastic component is used in conjunction with an anti-tumor drug.

28. The method of claim 27, wherein the anti-tumor drug includes Cisplatin.

29. The method of claim 27, wherein the anti-tumor drug includes Taxol.

30. The method of claim 1, wherein the antineoplastic component is an agent for down-regulating human telomerase reverse transcriptase (hTERT) gene.

31. The method of claim 30, wherein the antineoplastic component down regulates hTERT gene in human immunodeficiency virus (HIV).

32. The method of claim 1, wherein the antineoplastic component is an agent for inhibiting telomerase activity.

33. The method of claim 32, wherein the antineoplastic component inhibits telomerase activity in the HIV.